

F4: Barley Seed systems and Input Markets-Barley: Annual report 2016

1. Introduction

ICARDA is implementing a project entitled '*Deployment of malt barley and faba bean varieties and technologies for sustainable food and nutritional security and market opportunities in the highlands of Ethiopia*' with financial support from USAID in Ethiopia and *Increasing the Productivity of Cereal-based Systems to Enhance Food Security* in Iran (started in 2016-17). In Ethiopia, the project includes scaling-out improved barley varieties and associated crop management technologies in 21 zones and 62 districts of four regional states of Amhara, Oromia, Southern Nations, Nationalities and Peoples (SNNPR), and Tigray. In Iran, the project focuses in rianfed areas of four provinces i.e. East Azerbaijan, Kermanshah, Kurdistan and Lorestan provinces.

The following key areas are covered under CRP and bilateral projects in Ethiopia and Iran:

- Barley seed system study jointly with CRP-DS (including DNA finger printing) to analyze varietal adoption, farmer's perception, seed sources, etc to understand systemic constraints and recommend solutions in Ethiopia
- Accelerated early generation seed (breeder, pre-basic and basic seed) production by NARS in Ethiopia and Iran particularly using off-season production under irrigation where feasible
- Accelerated early generation seed (basic) seed production by NARS (Iran) and with farmer seed producer's cooperatives (Ethiopia). NARS identify and engage farmer groups to produce pre-basic and basic seed under their strict supervision and link them to regional seed certification agencies to ensure quality.
- Large-scale certified seed production by engaging the public/private sector where there is limited interest in barley seed production.
- Small seed pack distribution as part of on-farm quality seed production and scaling-out of barley technologies through revolving seed scheme in Ethiopia
- Popularization and demonstration of new improved malt barley varieties and integrated crop management technologies where farmers hosted both the demonstration and field days in Ethiopia
- Strengthening capacity of NARS partners, stakeholders and farmers for acquiring knowledge and skills for effective project implementation and provision of facilities where feasible
- Characterizations of farm households to establish benchmarks and measure the impact of the project on adoption and impact on food and nutritional security.
- Forging an effective partnership existing public, private and farmer-based actors for effective project implementation.

5. Capacity Development

Three levels of training were implemented by the project: i) Training-of-trainers (ToT) for technical staff from partner institutions undertaken by ICARDA; ii) Training-of-trainers (ToT) for technical staff from partner institutions (BoA) undertaken by NARS; and iii) training of development agents, extension services and farmers by BoA and NARS. ICARDA organized two in-country 'ToT' courses on 'Seed Enterprise Development and Management' on 12-13 May 2016 at Debre Berhan and on 18-20 August 2016 in Addis Abeba, Ethiopia, joint courses of barley and grain legumes (faba bean and chickpea) as per the objective of the bilateral projects. The first ToT focused on technical aspects of crop and seed production including the available

technologies while the latter focused on seed business management. The course program was participatory, where resource persons introduced the subject matter followed by ensuing discussions for sharing practical experience with participants.

The course was organized for technical staff of 13 agricultural research centers from 1 federal and 4 regional agricultural research institutes. There were 29 (2 female) and 22 participants during the first and second course, respectively which include agricultural economists and extension staff from ARCs and seed production coordinators of five agricultural research institutes. All trainees were selected based on their direct involvement in scaling-out and community-based seed production and marketing activities. In addition, Debre Berhan and Holeta ARCs conducted ToTs for their respective partners where 99 (23 female) technical staff from BoA (development agents, extension staff) and heads of seed producer cooperatives were trained in collaboration with ICARDA.

Ten partner ARCs trained about 3265 participants. Among these are 2699 farmers (410 female farmers, 15%) and 566 technical staff (121 females, 21%) from partners and stakeholders which include development agents, district extension experts, and heads of cooperatives union.

Two double cabin pickup cars to facilitate project activities and 1000 Purdue Improved Crop Storage (PICS) for chemical free seed storage were purchased and delivered to NARS.



Participants of the training course on seed enterprise development and management in 2016: Debre Birhan (left picture) and Addis Abeba (right picture)